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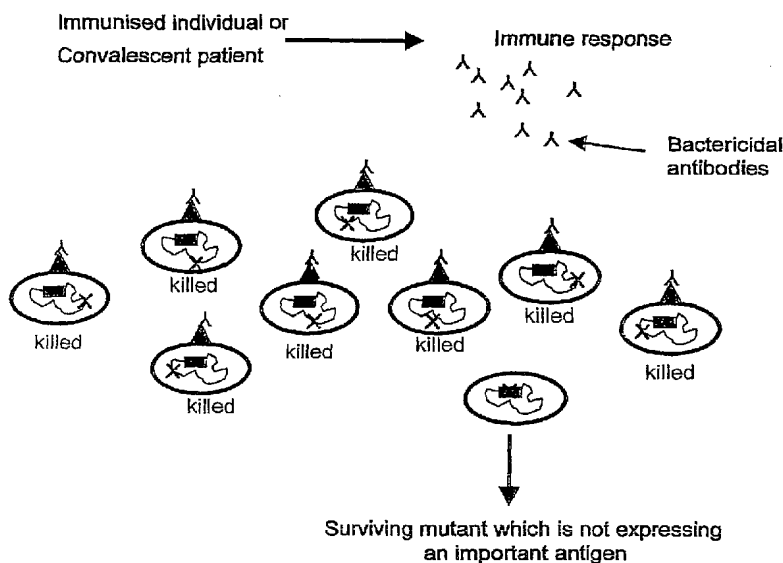
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(54) Title: VACCINES



Key:

Gene in genome encoding an antigen on a microbe

X = mutation

(57) Abstract: A method for identifying a polypeptide of a microorganism which polypeptide is associated with an immune response in an animal which has been subjected to the microorganism, the method comprising the steps of (1) providing a plurality of different mutants of the microorganism; (2) contacting the plurality of mutant microorganisms with antibodies from an animal which has raised an immune response to the microorganism or a part thereof, under conditions whereby if the antibodies bind to the mutant microorganism the mutant microorganism is killed; (3) selecting surviving mutant microorganisms from step (2); (4) identifying the gene containing the mutation in any surviving mutant microorganism; and (5) identifying the polypeptide encoded by the gene. The polypeptide identified or a variant or fragment thereof or a fusion of these is useful in a vaccine. The polypeptide may be a polypeptide comprising the amino acid sequence selected from any one of SEQ ID Nos 2, 4, 6, 8, 10, 12, 14, 16, 18, 25 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56; or a fragment or variant thereof or a fusion of such a fragment or variant, and is useful in a vaccine against *Neisseria meningitidis*.



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